

CLAIMS

What is claimed is:

1. A process for coating a soy product, the process comprising the steps of:

- (a) metering a liquid coating material through a flow restrictor;
- 5 (b) injecting a gas stream through the flow restrictor concurrently with step (a) to (i) atomize the liquid coating material and (ii) create turbulent flow of the gas stream and the atomized liquid coating, wherein the gas stream is optionally heated; and
- (c) adding a soy product to the region of turbulent flow concurrently with steps (a) and (b), wherein the soy product mixes with the atomized liquid coating material to provide a coated soy product.

10 2. The process of Claim 1 wherein the soy product is selected from the group consisting of soy protein isolate, soy concentrate, soy meal, soy cotyledon fiber, dehulled soybeans, soy hypocotyls, soy grits, soy chips, soy flour, textured soy protein, and soy flakes,

15 3. The process of Claim 1 wherein the liquid coating material is selected from the group consisting of a sweetening agent, a food flavoring agent or enhancer, a food color, a food aroma agent, an anti-caking agent, an humectant, an antimicrobial agent, an antioxidant, a surface modifying agent, a carbohydrate, a protein, a lipid, a mineral, a nutritional supplementing agent, an emulsification agent or a mixture thereof.

20 4. The process of Claim 1 further comprising repeating steps (a) – (c) at least once wherein the liquid coating material is the same or different.

25 5. A coated soy product made by the process of any of Claims 1-4.

6. A food comprising a coated soy product made by the process of any of Claims 1-4.

7. A nutritional supplement comprising a coated soy product made by the process of any of Claims 1-4.

8. A beverage comprising a coated soy product made by the process of any of Claims 1-4.

9. Infant formula comprising a coated soy product by the process of any of Claims 1-4.

10. A pet food comprising a coated soy product by the process of any of Claims 1-4.

30 11. Animal feed comprising a coated soy product by the process of any of Claims 1-4.

12. Use of a coated soy product made by the process of any of Claims 1-4 as a food ingredient, a nutritional supplement ingredient, a beverage ingredient, an infant formula ingredient, a pet food ingredient or an animal feed ingredient.

13. A process for coating a flour, the process comprising the steps of:

- 5 (a) metering a liquid coating material through a flow restrictor;
- (b) injecting a gas stream through the flow restrictor concurrently with step (a) to (i) atomize the liquid coating material and (ii) create turbulent flow of the gas stream and the atomized liquid coating material, wherein the gas stream is optionally heated; and
- 10 (c) adding a flour to the region of turbulent flow concurrently with steps (a) and (b), wherein the flour mixes with the atomized liquid coating material to provide a coated flour.

14. The process of Claim 13 wherein the flour is selected from the group consisting of soy flour, wheat flour, oat flour, rye flour, barley flour, rice flour, millet flour, corn flour and filler flour.

15. The process of Claim 13 wherein the liquid coating material is selected from the group consisting of a sweetening agent, a food flavoring agent or enhancer, a food color, a food aroma agent, an anti-caking agent, an humectant, an antimicrobial agent, an antioxidant, a surface modifying agent, a carbohydrate, a protein, a lipid, a mineral, a nutritional supplementing agent, an emulsification agent or a mixture thereof.

16. The process of Claim 13 further comprising repeating steps (a)-(c) at least once wherein the liquid coating material is the same or different.

17. A coated flour made by the process of any of Claims 13-16.

25 18. A food comprising a coated flour made by the process of any of Claims 13-16.

19. A baked good comprising a coated flour made by the process of any of Claims 13-16.

20. A snack food a coated flour made by the process of any of

30 Claims 13-16.

21. Use of a coated flour made by the process of any of Claims 13-16 in as a food ingredient.